

such a group can be. The number of species included is about 250, presented under five families.—J. M. C.

Forestry in New England

The increased attention that is being devoted to the question of forest preservation and forest restoration is being fostered and given intelligent direction by a number of publications appealing to the landowner who would make his forest-lands more valuable to himself and to the community. One of the best of these² deals somewhat specifically with the forestry problems of New England. Such problems appeal especially to many residents of towns and cities who own wooded land in the country, both because they often have a broader view of the economic principles involved and because intelligent forest management requires less constant attention than almost any sort of agriculture. To these and other intelligent owners of woodlands the present volume makes a direct appeal, although it may also be used with advantage by students in forestry schools.

The volume is arranged in two parts, the first dealing with such general principles of forestry as may be indicated by the chapter-headings: Silvics; Silvicultural systems; Silvicultural characteristics of New England trees; Forest planting; Forest insects and fungi; Forest fires; and Growth of trees and forests. The second part deals in some detail with the different forest regions of New England and the forest administration in the different states. A couple of maps show the distribution of the various forest regions of the New England states, while the appendix contains forest fire statistics, foresters' tables, and a bibliography.

The various topics appear to be handled with scientific accuracy, and still in a sufficiently non-technical manner to appeal to the intelligent layman; in fact, it seems to the reviewer that the mission of the book lies in such an appeal rather than in any use that may be made of it in the classroom. This would in no way lessen its usefulness, for one of the most important things in promoting the advance of forestry is the education of the general public to a conception of the problems involved, and an appreciation of the efforts that are being made for this solution. The book is well printed and attractively illustrated.—GEO. D. FULLER.

MINOR NOTICES

Rubber.—LOCK³ has brought the subject of rubber-planting within reach of a large audience. He has combined an account of the scientific side of the subject with a certain amount of practical information that will be of service

² HAWLEY, R. C., and HAWES, A. F., *Forestry in New England*. 8vo. pp. xv+479. *figs.* 140. New York: John Wiley & Sons. 1912. \$3.50.

³ LOCK, R. H., *Rubber and rubber-planting*. 8vo. pp. xii+245. *figs.* 22. *pls.* 10. Cambridge University Press. 1913.

to the prospective planter. The science and practice of rubber-planting are both new, and important developments in both are to be expected. Some of the topics treated in the eleven chapters indicate the scope of the work: The history of the use and cultivation of rubber; The botanical sources of rubber; The physiology of latex production; Planting and harvesting operations; the pests and diseases of *Hevea*; The chemistry of India rubber.

Anyone who is familiar with LOCK'S *Recent progress in the study of variation, heredity, and evolution* will know the accuracy and clearness with which the present subject is presented.—J. M. C.

The genus *Sabicea*.—WERNHAM⁴ has published in book form a monograph of *Sabicea*, which is the first of a series of monographs on Rubiaceae. The genus belongs to tropical Africa and America, a large majority of the species being "scrambling shrubs." The number of species reaches 105, and 62 of these are described as new. This is an indication of the harvest of new species the tropics will yield when investigated. The monograph is more than a description of species, for it includes a discussion and graphic illustrations of their interrelationships.—J. M. C.

Weeds.—With the increasing demand for practical lessons for children, it is of interest to note the appearance of a booklet on weeds, by R. LLOYD PRAEGER,⁵ as one of the "Cambridge Nature Study Series." The titles of the chapters suggest the contents: What weeds are; The life of a plant; On weeds in general; Seeds and their ways; The war against weeds; Some common weeds.—J. M. C.

The fresh-water flora of Germany, Austria, and Switzerland.—This very compact and well illustrated manual of the fresh-water flora of its region was planned to appear in 13 small volumes, 5 of which have appeared and have been noticed in this journal. Part 6 has now appeared,⁶ dealing with three orders of the Chlorophyceae, and prepared by HEERING of Hamburg.—J. M. C.

NOTES FOR STUDENTS

Antarctic vegetation.—The activity in the south polar explorations during the past decade and a half has added somewhat to the botanical knowledge of a remarkably poor flora. In agreement with SKOTTSBERG and others, BROWN⁷

⁴ WERNHAM, H. F., A monograph on the genus *Sabicea*. 8vo. pp. 82. pls. 12. Published by the British Museum (Natural History). 1914.

⁵ PRAEGER, R. LLOYD, Weeds; simple lessons for children. 8vo. pp. x+108. figs. 45. Cambridge University Press. 1913. 1s. 6d. net.

⁶ PASCHER, A., Die Süßwasser-Flora, Deutschlands, Österreichs, und der Schweiz. Part VI. Chlorophyceae. 3 (Ulothricales, Microsporales, Oedogoniales) by W. HEERING. pp. 250. figs. 384. Jena: Gustav Fischer. 1914.

⁷ BROWN, R. N. R., The problems of antarctic botany. Scottish National Antarctic Expedition 3: Bot. 3-20. Edinburgh. 1912.